ASBESTOS

NOVEMBER - 1947

SOMETHING UP OUR SLEEVE

Yessir, there is something up our sleeve. R/M's complete line of asbestos sleeving or tubing is worth looking into closely. It comes in diameters from 1/64" to 5" and in a wide variety of styles. Flameproof, flexible R/M sleeving is used on all kinds of electrical equipment. And there is an R/M tubing for every type of cable or bus bar. Throughout industry, you'll find R/M products doing tough jobs, and doing them well.

R/M

RAYBESTOS - MANHATTAN, INC.

ASBESTOS TEXTILE & PACKING DIVISION

MANHEIM, PA. NORTH CHARLESTON, S. C.

"ASBESTOS"

FOUNDED IN JULY 1919 AND PUBLISHED
MONTHLY SINCE THAT DATE
BY SECRETARIAL SERVICE
17th FLOOR INQUIRER BUILDING
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Estate of C. J. STOVER, *Proprietor*
A. S. ROSSITER, *Editor*
E. E. COX, *Circulation Manager*

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THANKSGIVING

We Americans call November the Thanksgiving month, because the high spot of the month is the last Thursday—Thanksgiving Day.

It was originated, so we are told by legend, history and story, back in 1621 by the Pilgrim Fathers at Plymouth, Mass., when they gathered together and gave thanks for an abundant harvest.

If the date 1621 is correct then we are this year celebrating the 326th anniversary of the day.

Much history has been lived thru in those 326 (or to be mathematically correct) 327 years. A number of wars have marked certain of them and in certain periods have retarded our progress. But it is hard to realize that so much progress has been made in those 327 years. From the few widely scattered settlements along the Eastern Coast has been developed these United States touching both oceans—Atlantic and Pacific; connected first by only "covered wagon" travel, then by far-flung railroads, later by private automobile and bus lines, and now by airline routes. What was once a matter of months to reach the other ocean from the East is now a matter of hours.

And this progress is mirrored not only in travel, but in industry—think of our many and huge factories; in communications—telegraph, telephone, airmail, radio; in our standard of living, reputed to be the highest (and most comfortable) in the world.

We cannot help but marvel when we pause a moment to stand off and view the picture of our progress.

There is much to be thankful for this 27th of November—Thanksgiving Day! Tho harassed by inflation; irritated by strikes, annoyed by many other troubles and problems—deterrents to progress, nevertheless the average citizen feasting on the national bird—the turkey, which has become the symbol of Thanksgiving Day—will admit that on the whole the United States is a pretty good place in which to live. And he will be thankful—we shall all be thankful—for the many blessings accorded us. And perhaps it will make us better understand and realize that it

is at least partially our responsibility to help those in other countries less fortunate than are we.

Let us therefore be thankful!

A FIRE PREVENTION WEEK STORY

October 5th to 11th was Fire Prevention Week.

In celebration, or perhaps we should say observance, the Philadelphia Public Schools held intensive fire drills. On Thursday of that week, in mid-morning the fire gong sounded in one of the High Schools (Benjamin High at Broad and Spring Garden Streets and, incidentally, visible from our north side windows). As a result of the recent fire drills, **twenty-two hundred pupils marched out of the six story building in four minutes.** There was no panic, no stampeding, or other disturbance, but a good deal of grumbling because "another drill" that week seemed just too much.

The students, many of whom were GI's, were astounded when, finally outside, they found that it was a real fire.

Proof of the value of fire drills, of Fire Prevention Week observance, and of the need for constant watch for fires—and opportunities to prevent them—by the Asbestos Industry.

. . . —

Thru modern research industry has brought into being many useful products. In doing so, it has enriched man's standard of living. It is thru no accident that America leads the world in technological advancement. Our country's accomplishments can be traced to the devotion of American industry to research. As a nation we are blessed with rich resources. As a result, we have been able to draw upon many raw materials for which research has found so many uses. *Lewis H. Brown,* Chairman, Johns-Manville, at corner stone laying of building in J-M's new Research Center.

. . . —

We enjoy thoroly only the pleasure that we give—Dumas.

RELATIONSHIPS - EMPLOYER AND EMPLOYEE

By L. C. Hart, Vice President for Relationships, Johns-Manville Corporation.

Editor's Note: In our July 1947 issue we announced the appointment of L. C. Hart as Vice President for Relationships, Johns-Manville Corporation. The new office was established, the company said, "in recognition of the high importance of the relationships between the company as an enterprise and the men and women who comprise the enterprise." This seemed such a forward step in industry that we asked Mr. Hart to tell us something of the relationship between employer and employee. In the article that follows he discusses this subject.

Three-quarters of management problems lie in the field of human relations. If management is to solve these problems, it must study human nature which is constituted of so many intangible and unpredictable elements that they are usually quite difficult of identification.

A human problem to be brought to a human solution requires human data and human tools. Too often we try to solve human problems with non-human tools and in terms of non-human data. We must first learn to recognize a human problem when we see one; and then, upon recognizing it as such, deal with it in terms of human emotions, behavior and approach.

Human problems cannot always be studied and solved by pure logic and reason. Human behavior is neither logical nor irrational; it is non-logical; it is motivated by sentiment.

All of us are human and we are happy or sad in direct proportion to the nature of our current emotional feelings and convictions. Most of us want the satisfaction that comes from being accepted and recognized as people of worth and standing by our friends and work associates. Social prestige at any given level or environment is one of the most vital, motivating, human emotions.

Money is only a small part of this social recognition; man does not live by bread alone. The manner in which we are greeted by our boss,—being asked to help a newcomer,—being asked to keep an eye on a

difficult operation, in the office or in the plant,—being given a job requiring special skill—all of these are acts of social recognition. They are very subtle forms of praise and provide a large share of an individual's mental remuneration.

We all want tangible evidence of social importance. We want the feeling of security that comes not only from the amount of money that we have in the bank, important tho that may be, but also from the knowledge that we are accepted members of a group.

A man whose job lacks social functions is like a man without a country; the activity to which he gives the major portion of his life is divested of all human meaning and significance.

To a degree, we may not, in the past, have recognized many of the bases of labor unrest and disputes. These disputes usually are stated in terms of wages, hours of work and physical conditions of work. These are the tangible evidences of unrest, but are they always the real causes? Many times these demands are disguising, and in part, the symptomatic expressions of, much more deeply rooted human situations which we have not yet learned to recognize, to understand, or to control.

Social dexterity in handling people is a prime necessity in dealing with human situations, and this may be acquired by management personnel only thru sympathetic, unselfish and conscientious interest in the happiness, contentment and welfare of people.

It is the responsibility of management, from the "top" at general headquarters, down thru plant, districts, sales offices, and departments, to assume as a major responsibility, the training and education of all members of an enterprise in the factors of human relationships. They are ever complex and ever changing; they defy standardization; but upon human relationships depend the degree of accomplishment attained thru cooperation and collaboration. Failing in that attainment, there results only conflict, turbulence and frustration. An administrator today requires, perhaps above all else, insight into the

dynamics of human behavior. The old philosophy of "ordering and forbidding" is obsolete. Now, relationships should be conducted on the principle of "engineering of consent".

BUDD GIVES CREDIT TO ASBESTOS FOR EFFICIENCY OF RAIL BRAKE

The Budd Company[1] has perfected a new railroad disc brake which it says will enable trains to stop quicker in a shorter distance without discomfort to passengers.

Edward G. Budd, Jr., president, says the new disc brake can stop a car running at 60 miles an hour in less than 1,000 feet without discomfort to passengers; at 80 miles in less than 1,600 feet, and at 100 miles in less than 2,500 feet. He claims it is "a considerable improvement" over the clasp type brake now in general use.

Any why? The account of this new brake in the Wall Street Journal (October 29, 1947 issue) explains that the disc brake, the result of 10 years' research and development, has greater efficiency than the clasp brake because "the shoe is constructed of an asbestos-lined composition. This doesn't lose its friction to the same extent as a clasp brake shoe. The clasp brake, since metal works on metal, reduces friction because of the extreme heat created and thus reduces retardation."

[1]Manufacturer of Railroad cars, etc., Philadelphia.

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Answering hundreds of practical questions on fuel saving practices and fuel conservation measures, the Bureau of Mines has combined in a single publication all of the material used successfully in the wartime National Fuel Efficiency Program that resulted in the saving of millions of tons of coal annually. The publication is known as Bulletin 466, "A Guide for Reducing Fuel Consumption in Commercial Plants" and may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for 50c.

• • • —

Face your fears. Analyze them. Daylight dismisses ghosts—Dr. Joseph Fetterman.

ASBESTOS IN ALKALI CHLORINE INDUSTRY

By M. S. Kircher, Hooker Electrochemical Co.

The importance of asbestos to all industry thru its vital service in alkali-chlorine manufacture is not generally realized, perhaps because the actual consumption is relatively small. The alkali-chlorine industry literally "forges the anchors and spins the gossamers" of our modern civilization.

Caustic soda is an essential chemical in the basic process industries—steel, petroleum, chemical, soap, rayon, rubber, pulp and paper. Chlorine is an equally essential chemical in the paper, chemical, magnesium, and many other industries but is most important as the key that makes possible the myriad refinements of our contemporary civilization such as selective weed killers, the miracle insecticides DDT and HCH (hexachlorocyclohexane), a number of tailor made plastics, high test antiknock gasoline, modern lubricants, non-toxic refrigerants, non-inflammable solvents, dyes, medicines, fireproofing compounds, dry cleaners and so forth.

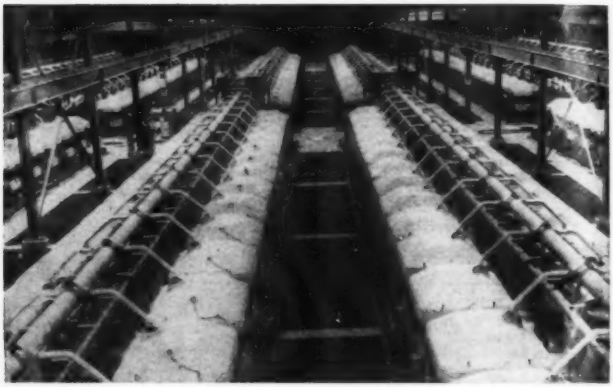
Approximately 95% of the United States' output of electrolytic caustic soda and chlorine is produced in the diaphragm type of cell of which the asbestos diaphragm is the heart. In these electrolytic cells, common salt and water are converted by electrolysis into caustic soda, chlorine and hydrogen.

The function of the diaphragm is shown in the diagram on the opposite page. Brine is fed into the anolyte (the solution which is in contact with the anodes) and the anolyte flows thru the asbestos diaphragm into the catholyte (the solution which is in contact with the cathode). With passage of direct electric current, chlorine is formed in bubbles on the anode, hydrogen is formed in bubbles on the cathode and sodium hydroxide (caustic soda) is formed in the catholyte solution. The diaphragm must cause the anolyte to flow evenly over and thru the entire active area of the perforated cathode into the catholyte yet it must prevent the catholyte and hydrogen from diffusing back

SCHEMATIC SECTION OF A DIAPHRAGM CELL

into the anolyte. Back diffusion of the strong alkaline catholyte into the anolyte causes loss of production, formation of oxygen rather than chlorine on the anode, and rapid deterioration of the graphite anode.

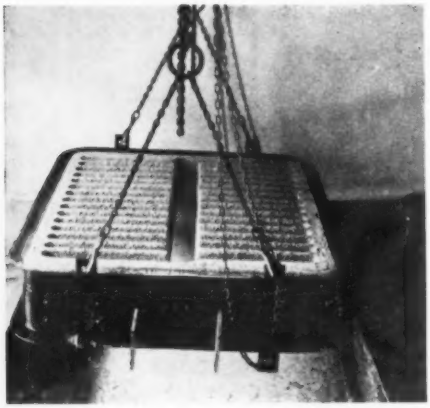
Diffusion of hydrogen into the anolyte results in a mixture of hydrogen in the chlorine which is dangerous because they may combine with explosive violence. Hence, the diaphragm must be of a material which will resist the strong chemical action of hot caustic soda and hot wet chlorine and must form a filtering layer with very fine and very even pores to control the flow of the anolyte.



Cell Room in an Electrolytic Alkali Chlorine Plant

Early cells built in Europe used diaphagms of such material as porous clay and porous Portland cement but these were thick and clumsy and added greatly to the electrical resistance of the cells. Later cells used asbestos cloth, a bed of asbestos fibre with admixture of other materials, and asbestos paper, which was a marked improvement. The cells developed during the period approximately covered by the years 1900-1925 almost exclusively made use of asbestos paper diaphragms. The asbestos paper was generally applied by laying or wrapping it on a flat per-

forated steel sheet or steel wire screen cathode and holding it in place by clamping the edges of the steel sheets or screen to the cell body. Thirty or more commercial variations of this type of cell have been used. In general, these fall into two classes—those with cylindrical cathodes and those with flat cathodes. In 1928-1929 a new type of diaphragm was developed using asbestos fibre deposited from a solution directly onto the cathode by means of vacuum which eliminated the necessity for readily accessible plain flat surfaces. This method of forming a diaphragm made practical a complicated cathode structure and hence made possible an entirely new type of cell design in which large electrode areas could be packed into a small space. At the present time about half of the diaphragm cell alkali-chlorine capacity in the United States uses asbestos paper the other half using deposited asbestos diaphragms.



Hooker Type "S" Cell Cathode with Freshly Deposited Asbestos Diaphragm

The photo shows a cathode with a newly deposited asbestos diaphragm.

The brine which is fed to the cells must be carefully treated to remove calcium and magnesium salts. Removal of these salts is essential because they form a precipitate within the diaphragm at the point where the brine becomes

alkaline. Even with good purification traces of calcium and magnesium remain, which, added to impurities picked up from the graphite and cell bodies, tend to fill up the pores of the diaphram. It is therefore an accepted part of the operation of diaphragm cells that the diaphragms gradually become less porous and eventually have to be renewed. In the early period of diaphragm development, life of a few days was considered normal. Now an average life of 150 to 300 days depending upon type of cell, current density and other factors is considered usual. The used asbestos from the diaphragms is generally discarded. Various processes have been proposed for its recovery but because of the relatively low cost of new asbestos and the difficulty of removing impurities these are not economical.

In a general way it sounds rather simple to make electrolytic cell diaphragms from asbestos paper, cloth or fibre but actually this is far from the case. Of the several types of asbestos only chrysotile is really satisfactory for diaphragm use and when using the fibre in deposited form only particular fibre lengths and accurately graded mixtures of different lengths will produce diaphragms of uniform and reproducible performance. Quite small changes in the relative proportions of different fibre lengths and size produce diaphragms having greatly differing operating characteristics. It is estimated that the average consumption of asbestos for cell diaphragms amounts to about 1 to 1.5 pounds per ton of chlorine produced. The industry has grown from an annual production of approximately 200,000 tons of chlorine in 1929 to 514,000 tons in 1939 to an estimated 1,600,000 tons in 1947. It is estimated that approximately 1,600,000 to 2,400,000 pounds of asbestos will be used in alkali chlorine production in 1947.

It is of interest to note the course of cell development in Germany. The only diaphragm cell extensively used was the Billiter cell, which was rather primitive compared with better American diaphragm cells. Approximately 40% of the German chlorine cell production capacity in 1942 consisted of this type of cell, the other 60% consisting of mercury cells, and it was planned that in 1944 seventy-one per cent of the German cell production would be in Mercury

cells. The German efforts had been directed almost entirely toward the development of mercury cathode cells which require no diaphragms. There are several reasons for this course of development, one of the most important of which was the non-availability to Germany during wartime of asbestos of suitable quality and in sufficient quantity.

Asbestos has many other uses in connection with caustic chlorine cells in addition to its use as a diaphragm material. It is used as a component of concrete for cell parts, as a filler in asphaltic types of putty, in gaskets, and as a filler in clay-linseed oil type putties used extensively for sealing cells. In addition it is used on a large scale for heat insulation and general construction purposes in the plant buildings.

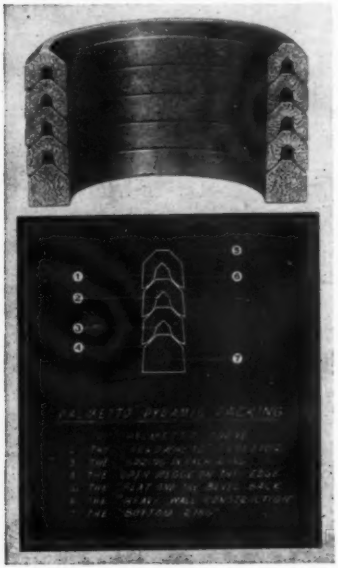
It is evident that a large section of industry of the country is dependent on the alkali-chlorine industry and this, in turn, is dependent on the asbestos industry. Altho the requirements of asbestos for electrolytic cell diaphragms may be relatively small in actual tonnage, they are exceedingly important to all industry.

. . . —

There are hundreds who can stand failure to one who can stand success; the good loser is far more common than the good winner.—Franklin P. Adams.

DESIGN IMPROVES "VEE" TYPE PACKING

During the war many products were evolved or invented, and manufactured for some particular war purpose. A goodly number of asbestos products came under this category. In many cases the inventions or improvements were found to be definitely and permanently advantageous. An outstanding example of such improved product is Palmetto Pyramid Packing manufactured and sold by Greene, Pyramid Packing manufactured and sold by Greene, Tweed & Co.[1]



Palmetto Pyramid Packing
(Registered Trademark)

Design is the feature which gives prominence to this packing rather than material used in its manufacture. While generally made of a high grade woven asbestos cloth, treated with a binder and molded to desired size and shape, other fabrics, such as duck, have been used with success in certain applications, and sometimes it is even made of composition material compounded to meet a particular and unusual condition.

The sketch shows the principle of the design better than it can be described.

When the rings are assembled into a set, the Palmetto curve (1) which automatically forms the arrowhead shaped reservoir (2) allows complete lubrication at all times. It

[1] Ask Greene, Tweed & Co., North Wales, Pa., for their folder on this type of packing.

also forms the hinge of the ring, giving a sort of spring action (3) to the assembled set. An open wedge (4) forms between the rings to provide a safety channel for lubrication of both cylinder and plunger. The last ring on an assembled set is the same as any center ring with the unique feature of having a flat top (5) ring or bevel top ring without the use of a so-called special adaptor ring. The heavy wall construction (6) provides longer packing life with the above added advantages of the features already mentioned. A flat bottom (7) molded adaptor ring completes the set for ready installation.

Palmetto Pyramid Packing came about in the effort of the manufacturers to provide molded packings for high pressure, high temperature equipment for the armed forces, but it will find, in fact is finding, great favor among buyers of packing at the present time—in the post war era, keeping up with the continuous advancement of high powered, pneumatic, and hydraulic equipment.

CORRUGATED ASBESTOS-CEMENT USED AS PARTITION

What might be put on our list of "decorative" uses of corrugated asbestos-cement is described in the October number of Practical Builder[1], in presenting the plan of a "home with apartment efficiency".

There are several outstanding features in this uniquely planned house, only one of which has anything to do with asbestos materials.

The living room and dining room are really one large space, divided only by door high partitions, and these partitions are made simply of painted corrugated asbestos-cement.

So far as we can tell from the drawing and the pictures, there are no doors between the rooms, only doorways.

[1] Published at 59 E. Van Buren St., Chicago, Ill.

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Are you angry that others disappoint you? Remember, you cannot depend upon your self.—Benjamin Franklin.

MARKET CONDITIONS

GENERAL BUSINESS

Business in most lines is good. Prices on all lines are high because of high labor and other costs. Demand for almost everything is higher than supply. People need refrigerators, cars, houses, and many other items which they have held off buying principally because they have been virtually unobtainable. Even at high prices, and in many cases low quality, people feel they must have certain "necessities"—necessities to Americans but many of which would be classed as luxuries in other countries.

It is too early to say just what effect the discontinuing of credit controls on November 1st will have on general business. The inflationary trend is another worry to general business, even tho quite natural under all circumstances. After all the natural law of supply and demand still exists and will continue to exist no matter what controls are adopted. We have about come to the conclusion that if everybody stopped jockeying with that natural law, and let it have its head, the whole economic structure would right itself more quickly.

ASBESTOS - RAW MATERIAL

Asbestos Crudes and Fibres continue in big demand in all grades. Several Canadian Fibre producers have announced price increases of approximately 10%, effective November 1st. The increases were considered necessary to partially offset the upward trend in labor rates as well as increased costs for bags and general operations.

Some Canadian mine producers report a shortage of cars, which of course considerably delays deliveries.

A caller at our office the last week in October was trying to obtain a short grade of fibre for a particular product, where asbestos was absolutely necessary tho used in small amount (about 18 carloads a year). He said that unless they could obtain fibre of the right grade it would be necessary for them to discontinue the making of their product.

Asbestos Textiles. Demand in this market continues on a relatively heavy basis. While certain lines of textiles, such as roving, laps, some sizes of tapes and cloth, show some slackening, other materials are very active. The mechanical packing demand has fallen off to some extent but, it is believed, because of inventory adjustments, and manufacturers therefore expect that this field will soon again show an upward trend. Requirements for textiles for friction materials remain heavy.

Prices are firm and will likely continue so, especially in the face of rising costs of crudes and fibres, as well as other costs—labor, etc.

Brake Lining. Replacement sales of brake lining are still off because jobber stocks are still heavy. Equipment sales, however, are well ahead of last year and should continue an upward trend in the next quarter.

The total volume of business done in brake linings and clutch facings for the month of September 1947 was very slightly higher than that for the same month last year. When compared with August, there also was an increase but not as high as expected. When the total sales for the first nine months of this year are compared with the same period in 1946, there was a considerable increase over last year. Sales for export in September 1947 increased over all periods under review and were much higher than the volume done in September 1946.

Asbestos Paper. All reports are of a very active paper market with machine capacity wholly absorbed. One large manufacturer reports that his firm has found it necessary, because of rising costs, to increase prices on Commercial Paper 15% effective October 31st.

Asbestos Millboard. Demand is reported as active; equipment business heavy, with more commercial millboard business being written this quarter. It is believed that requirements will continue high for the balance of the year, with a possible price rise on 1948 purchases.

In fact one large manufacturer on October 31st raised its prices 15% on carload lots, 50% on less carloads, and

somewhat more on cut material which has for many months been very unprofitable business.

Insulations. High Pressure. This commodity continues to be in heavy demand, heavier in October than in several preceding months.

One manufacturer announced price increase on October 31st of 10% on Magnesia and High Temperature, made necessary by increasing costs all along the line—labor, raw materials, freight, canvas, packaging, etc.

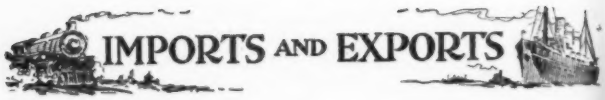
Insulation. Low Pressure. The fall season has increased business on Low Pressure insulating materials. Jobbers' stocks are lower than average because of inability to get pipe. Low pipe inventories keep the inventories on low pressure insulation low. Purchases of insulation are made for particular work on which the insulation is to be used.

In this market also a manufacturer has announced price increases—10% on most low pressure items. New prices were effective October 31st.

Asbestos-Cement Products. The situation on asbestos-cement products of all types remains unchanged as far as volume is concerned, the limiting factor in this respect being the limited supply of asbestos fibre. However, costs of all materials, asbestos fibres, Portland cement, and pigments, as well as labor, are steadily increasing and the recent increase in transportation costs will undoubtedly force manufacturers to take a serious look at their selling prices which, in most cases, have remained virtually unchanged thruout the year.

Demand in all asbestos-cement products is greater than production.

The above comments have been made by men in close contact with the respective markets. All opinions of this kind are welcomed.



Imports into U. S. A.
(Figures by Bureau of Census)

Unmanufactured Asbestos—By Countries

	August 1947 Tons (2240 lbs.)
From Canada	38,268
S. Rhodesia	370
Union of South Africa	548
Total	39,186
Value	*$2,055,208*
By Grades:	
Crude No. 1 (Chrys) S. Rhodesia	164
Crude No. 2 (Chrys) Canada	2
Crude No. 2 (Chrys) S. Rhodesia	152
Crude Other (Chrys) S. Rhodesia	54
Crude Other (Chrys) Union of South Africa	161
Crude (Blue) U. of South Africa	26
Crude (Amosite) U. of South Africa	361
Textile Fibres (Chrys) Canada	911
Shingle Fibres (Chrys) Canada	5,656
Paper Fibres (Chrys) Canada	5,487
Fibres—Other (Chrys) Canada	26,212
	39,186

Manufactured Asbestos Goods

	August 1947 Quantity (Lbs.)	Value
Asbestos Yarn		
United Kingdom	12,288	$9,513
Asbestos Manufactures—Other		
Canada	.....	42
United Kingdom	.....	130
	12,288	$9,685

Note: In our October number, we reported importation of 488 tons of Amosite from the U. S. S. R., with the footnote that we had questioned the item, believing it to be an error. (See page 28 of October 1947 "ASBESTOS").

We are now advised by the Bureau of the Census that the material did come from the U. S. S. R., but was of the Chrysotile variety.

Exports from U. S. A.
(Figures by Bureau of Census)

Unmanufactured Asbestos

	August 1947 Tons (2240 lbs.)	Value
To Argentine	31	$ 1,348
Brazil	13	2,400
Columbia	10	783
Venezuela	61	15,086
Mexico	5	1,054
Norway	119	12,290
Philippine Islands	44	7,000
Curacao	15	930
	298	$40,896

Manufactured Asbestos Goods.

Asbestos Paper, Mlbd. & Rlbd.	Lbs.	29,326	$ 7,754
Asbestos Pipe Covg. & Cement	Lbs.	878,009	105,278
Asbestos Textiles & Yarn	Lbs.	32,442	25,320
Asbestos Packing	Lbs.	247,291	168,684
Asbestos Brake Lng. (Mld.&S.-Mld)	Lbs.	257,753	235,550
Asbestos Brake Lng. (Woven)	L. Ft.	88,360	47,031
Asbestos Clutch Fcgs. (Mld.&S. Mld.)	No.	97,905	50,316
Asbestos Clutch Facings (Woven)	No.	14,536	12,024
Asbestos Brake Blks. (Mld. & S. Mld.)	Lbs.	70,713	53,055
Asbestos Brake Blks. (Woven)	Lbs.	6,897	6,512
Asbestos Sheets	Lbs.	1,462,702	75,471
Asbestos Roofing	Sqs.	17,495	139,402
Other Asbestos Manufactures	Lbs.	.....	100,869
			$1,027,266

AUTOMOBILE SALES[1]

	September 1947	Jan. to Sept. 1947
Passenger Cars	307,879	2,570,059
Motor Trucks	110,805	913,446
Motor Coaches	1,615	14,306
	420,299	3,497,811

In August total sales were 349,424 (Revised).

Total sales in September 1946 were 328,795; for the first 9 months of 1946 they totalled 1,950,905.

These figures cover the United States only.

[1] Figures supplied by Automobile Manufacturers Association, New Center Building, Detroit, Mich.

Canada

(Department of Mines, Province of Quebec)

August 1947 ..... 52,731 tons (2000 lbs.)
August 1946 ..... 53,688 tons (2000 lbs.)

Africa (Rhodesia)

(Rhodesia Chamber of Mines)

Production for July 1947 ..... 4,285.44 tons (2000 lbs.) valued at £141,972

Africa (Swaziland)

Production for August 1947 ..... 2,400 tons (2000 lbs.)

Union of South Africa

(Quarterly Information Circular, Union of S. Africa)

Tons (2000 lbs.)

		1st Qr. 1947 (Jan., Feb., Mar.)			
	Production	Local Sales		Exports	
	Tons	Tons	Value	Tons	Value
Amosite	3,276	248	£2,199	4,512	£89,348
Chrysotile	569	381	9,242	21	896
Cape Blue	1,762	95	936	3,330	122,027
Transvaal Blue ..	186	33	662	242	9,077
Anthophyllite	17	17	85	.....	.....
	5,810	774	£13,124	8,105	£221,348

Bolivia

(U. S. Mineral Trade Notes)

Production for the first quarter of 1947 was 30 metric tons (33 short tons) all of which was shipped to Argentina in the month of January.

BUILDING

Contracts awarded for construction in the thirty-seven states east of the Rocky Mountains during the first three quarters of 1947 totaled $5,626,111,000 representing a decline of 6 per cent from the total reported for the corresponding nine months of last year, according to the F. W. Dodge Corporation.

Projects classified as publicly owned are running substantially in advance of 1946, accounting for 29 per cent by dollar volume of all building and construction contracts reported in the thirty-seven states in the first three quarters.

NEWS OF THE INDUSTRY

BIRTHDAYS

Louis Herscovitz, Vice President and General Sales Manager, The Ruberoid Co., New York City, November 18th.

J. A. Marcotte, General Sales Manager, Asbestos Corporation Limited, Thetford Mines, P. Q., Canada, November 22.

F. R. Anderson, Vice President, Sall Mountain Co., Chicago, Ill., November 24.

Alvin C. McCord, President, McCord Radiator & Mfg. Co., Detroit, Mich., November 24.

John J. Krez, President, Paul J. Krez & Co., Chicago, Ill., November 26.

Alfred E. Hermes, Secretary-Treasurer, Acme Asbestos Covering & Flooring Co., Chicago, Ill., November 27.

Frank N. Grossman, Secretary, Arnold Insulations Inc., Chicago, Ill., November 28.

E. T. Connell, President, Connell Asbestos Co., Glendale, L. I., N. Y., November 29.

S. P. Moffit, Executive Vice President, The Ruberoid Co., New York City, November 29.

R. E. Kramig, Senior Partner, R. E. Kramig & Co., Cincinnati, Ohio, November 29.

Harvey D. Burgstresser, Sales Department, Philadelphia Asbestos Co., Philadelphia, Pa., December 3.

Irving Kevelson, Ace Asbestos Mfg. Co., Jersey City, N. J., December 4.

D. A. McMillan, Vice President, Gulf States Insulation Co., Mobile, Ala., December 4.

K. H. Behre, Secretary, The Ruberoid Co., New York City, December 5.

Victor Mauck, President, Nicolet Asbestos Mines, Norristown, Pa., December 6.

P. M. Berry, Secretary-Treasurer, Standard Asbestos Mfg. Co., Cleveland, Ohio, December 8.

Kenneth MacLellan, Managing Director, George MacLellan & Co., Ltd., Glasgow, Scotland, December 8.

D. W. Widmayer, General Sales Manager, Keasbey & Mattison Co., Ambler, Pa., December 12.

John O. Camp, Vice President, Southern Friction Materials Co., Charlotte, N. C., December 13.

George P. Grossman, President, Asbestos Products Co., Inc., Lakewood, Ohio, December 13.

Joseph Poulin, President & General Manager, Asbestonos Corporation, Ltd., St. Lambert, Montreal, P. Q., Canada, December 15.

Lewis J. Silverman, Vice President, Union Asbestos & Rubber Co., Chicago, Ill., December 16.

Alvin Brown, Vice President for Finance, Johns-Manville Corporation, New York City, December 17.

Paul Doud, Proprietor, Doud Insulation Co., Philadelphia, Pa., December 17.

To all these gentlemen we extend congratulations and best wishes on the occasion of their birthdays.

MR. BURGSTRESSER SAYS THANK YOU

A. K. Burgstresser, whose retirement from Norristown Magnesia & Asbestos Co. and from active participation in the Asbestos Industry, was announced in our October issue, has been so deluged with what he describes as "fine letters" from members of the Industry, that it is quite impossible for him to reply to them. He has asked us therefore to thank those who wrote him and to express his appreciation of their kindly regard.

F. HIRSCHHORN, DIRECTOR CAPE ASBESTOS CO., DIES

F. Hirschhorn, South African resident Director of Cape Asbestos Company, passed away on September 25th.

Mr. Hirschhorn was born in 1867 and went to Kimberley as a young man. He took charge of the Wernher-Beit Co. and subsequently became Director of DeBeers. He was the last of Cecil Rhodes'[1] personal friends, knew him in Kimberley in the early days and was frequently consulted by him on diamond matters. In fact Mr. Hirschhorn was recognized as one of the finest judges of diamonds in South Africa.

Mr. Hirchhorn's association with the Cape Asbestos Company began in 1883, the year the company was formed, and has been a member of the Board since 1913. The Company pays him tribute by saying that his knowledge of South Africa and the Asbestos Industry and his business acumen have been of immeasurable value to them.

In his quiet and unostentatious way he played a leading part in the life of Kimberley and will be greatly missed by the wide circle of friends he has made over the years.

[1]Founder of Rhodesia, which was named in his honor.

PABCO'S 3RD QUARTER REPORT

Quarterly report of The Paraffine Companies, Inc. (of which Plant Rubber & Asbestos Works is a subsidiary) for the three months ending September 30, 1947 shows a total profit of $809,517 or $1.60 per share of common stock, compared with $634,940 or $1.24 for the same period in 1946.

ABSCO NEWS FEATURES SOUND CONDITIONING

The October 1947 number of Absco News, published by the Asbestos Supply Companies, 321 First Avenue South (4) Seattle, Wash., features Sound Conditioning. The publishers will be glad to send a copy to any reader of "ASBESTOS" upon request.

OPENING OF FIRST BUILDING OF NEW J-M RESEARCH CENTER

The above photograph shows the beautiful lines of the first building of Johns-Manville's new research center being erected on the banks of the Raritan river near Manville, N. J.

This new research center was formally opened on October 16th, by appropriate ceremonies participated in by a distinguished group of scientists, research directors from other companies, editors and writers from New York and New Jersey Press, who had been invited to inspect this project that will soon house the world's largest research laboratories devoted to buildings materials, insulations and allied industrial projects.

Located on a 93 acre tract about 40 miles from New York, the new J-M Research Center will ultimately be composed of five or six buildings, connected by underground subways for trucking, grouped around a quadrangle the size of two football fields.

The first building to be completed depicted above, is 572 feet long and is known technically as the "wet semi-works building" because all research and development involving wet processes will be housed under its roof. It contains 10 miniature factories, or pilot plants, each directly connected with its own special laboratory, an arrangement that permits research projects to be carried thru the laboratory stage to experimental production, under one roof.

Thus, when a new or improved product leaves the Research Center it will have completed its pilot plant experimental production, been perfected, and made ready for mass production in any of the 20 plants now completed or being built to manufacture J-M products in the United States, Canada and Mexico.

A highlight in the ceremonies was the laying of the corner stone of the second building of the Center, Lewis H. Brown, Chairman of the Board of Directors of Johns-Manville, officiating. C. F. Rassweiler, Vice President for Research and Development, also addressed the assembly.

The present Johns-Manville research force consists of about 420 scientists and technicians.

RAYMOND W. ADAMS APPOINTED
Plant Manager, Asbestos Limited, Inc.

Raymond W. Adams has recently been appointed Plant Manager of Asbestos Limited, Inc., Millington, N. J.

Prior to joining Asbestos Limited, Inc., Mr. Adams was associated with The Ruberoid Co. for 14 years in various capacities, the last four years as Assistant Superintendent, and also Master Mechanic, at Bound Brook.

JOHN W. SOLOMON
JOINS U. S. RUBBER CO.

John W. Solomon has been appointed general sales manager of the textile division of the United States Rubber Company.

Mr. Solomon was former owner and manager of Marjon Fashions, at Sylacauga, Ala. His appointment follows expansion of the textile division of the company and the development of new postwar products. These products include, Strex, a stretchable all-textile fabric; Ustex, a cotton yarn possessing high strength and low stretch properties; Asbeston, a fire resistant asbestos fabric for ironing board covers and other household articles; Carosel, high-absorbency fabric for dish towels, and asbestos-glass fire-resistant fabrics for decorative use.

Mr. Solomon is a graduate of Alabama Polytechnic Institute, Auburn, Ala. Previous to his ownership of Marjon Fashions, he was vice-president of Avondale Mills.

"REPORT ON GERMANY"
BY LEWIS H. BROWN

Johns-Manville Stockholders' News for October 1947, gives a summary of the 250 page report made by Lewis H. Brown to General Lucius D. Clay, Commander in Chief, European Command, United States Army Forces, and to the State Department and others in Washington.

The full report, under the title "Report on Germany" was published on October 27, 1947, by Farrar, Straus & Co., 53 E. 34th St., New York 16, and will be available thru the publisher as well as thru book stores and dealers.

FLINTKOTE WINS DIRECT MAIL AWARD

Announcement of the Best of Industry and runner-up Merit Awards winners in the 1947 Direct Mail competition was made on October 23rd at the Direct Mail Advertising Association's 30th Annual Convention in Cleveland, Ohio. First place in the Building Materials classification was won by The Flintkote Company which won similar awards in 1936, 1937, 1938 and 1946.

A. G. W. SINCLAIR, APPOINTED
V. P. and Director, Canadian J-M

A. G. W. Sinclair

The appointment of A. G. W. Sinclair, as vice president and director, was announced recently by Canadian Johns-Manville Co. Limited.

Mr. Sinclair has been associated with Johns-Manville since 1935; he served for a number of years as special representative of Winnipeg District Sales Office; was made general sales manager of the Company's Canadian Products Division last year.

JOHNS-MANVILLE THIRD QUARTER REPORT

Sales of Johns-Manville Corporation during the third quarter were $32,589,337, compared with $26,122,060 during the same period last year.

Net earnings for the third quarter were $2,307,881, compared with $2,310,466 for the third quarter in 1946. Earnings per share of common stock were 78 cents in 1947.

Sales for the first nine months of 1947 were $95,909,375; for the same period in 1946, $61,578,894.

Earnings for the nine months period ended September 30, 1947 were $7,497,750, equal to $2.56 per share of common stock, compared with $1.10 per share for the same period in 1946.

HARVEY D. BURGSTRESSER JOINS PHILADELPHIA ASBESTOS CO.

Harvey D. Burgstresser, formerly connected with the Sales Department of the Norristown Magnesia & Asbestos Company, has joined the sales staff of the Philadelphia Asbestos Company, and will devote his efforts to selling all materials of their manufacture and distribution.

"ARIZONA ASBESTOS DEPOSITS"
R. I. 4100 — August 1947

Report of Investigations on Arizona Asbestos Deposits, Gila County, Ariz., (R. I. 4100) by Lincoln A. Stewart and P. S. Haury, has just been made available by the U. S. Bureau of Mines. This report is most comprehensive, mostly geological in nature, illustrated with maps, sketches and graphs, and should be in every Asbestos Library. Can be obtained by request (no charge is made) from Publications Distribution Section, U. S. Bureau of Mines, 4800 Forbes Street, Pittsburgh 13, Pa. The edition is limited and therefore only one copy is allowed to an applicant.

ROCKBESTOS OPENS LOS ANGELES DISTRICT SALES OFFICE

A sales office has been opened by Rockbestos Products Corporation, in the Los Angeles district, the main purpose being to serve wire and cable customers in the southern California territory.

The new office is located at 6919 San Fernando Road, Glendale 1, California. Warren S. Jones, formerly of the New Haven, Conn., sales office is in charge and will travel the territory. The office comes under the jurisdiction of Rockbestos Pacific Coast headquarters and warehouse at 3100-3134 East 10th St., Oakland, California.

PATENTS

This information obtained from the Official Patent Gazette, published weekly by the U. S. Patent Office, Washington, D. C.

Copies of patents can be obtained by sending 10c (in coin) to The Commissioner of Patents, Washington, D. C., giving the patent number, date it was issued, name of patentee and name of invention.

Flexible Insulation, Method for making. No. 2,425,293. Granted on August 12, 1947 to Paul F. McDermott, Martinsville, N. J., assignor to Johns-Manville Corp. Application July 8, 1944. Serial No. 544,080.

In a method of making a blanket or tape, the steps comprising knitting a tubular sleeve around a hollow forming member having an open end, drawing said sleeve from said forming member for said open end as it is knitted, pneumatically delivering a loose fibrous material thru said forming member and introducing it into said sleeve as said sleeve is drawn from said forming member and withdrawing air thru said sleeve adjacent the end of the forming member.

Treating Friction Material. No. 2,426,294. Granted on August 26, 1947 to Clyde S. Batchelor, Bridegport, Conn., assignor to Raybestos-Manhattan, Inc. Application December 22, 1943. Serial No. 515,325.

A method of stabilizing friction material containing a cured

organic binder to substantially eliminate fading tendency thereof on initial use, which consists in pre-treating said friction material in formed condition prior to operative use by directing heat from an external source against the operative surface thereof while confining it in a relatively inert atmosphere to partially volatilize the binder contained on and adjacent to said operative surface.

BOOK LIST

Asbestos Mining Methods. By C. V. Smith. (Reprint) 16 pages. 25c per copy, discount in quantities of 50 or more.

Milling Asbestos. By J. C. Kelleher. (Reprint) 16 pages. Companion article to Asbestos Mining Methods. Both should be in every Asbestos Library, 25c per copy, discount in quantities of 50 or more.

Recovery of Raw Asbestos. By Roland Starkey. (Reprint) 6 pages. Supplement to Milling Asbestos. 25c per copy, discount in quantities of 50 or more.

The Asbestos Factbook, 16 pages. Information in compact form on origin, facts, locations, uses, analyses, qualities, 10c per copy.

Canadian Chrysotile Asbestos Classification. Including latest Quebec Testing Method. 30c.

Twelve Estimating Tables, with Chart. Convenient in figuring flange fittings and other areas. $1.00 per set.

Manual of Unit Prices (for figuring pipe covering and blocks) 35c per copy postpaid.

Processing Asbestos Fibres. 8 pages. (Reprint) 25c per copy

Tests for Cotton Content. 4 pages (Reprint) Describing several methods of testing asbestos textiles for cotton content. 10c per copy.

Chart—Dollars Cost of Uninsulated Pipe. (Reprint) 25c each

Asbestos: A Magic Mineral, by Lilian Holmes Strack. Makes a a nice Christmas Present for children of school age. $1.00 per copy.

Asbestos—The Silk of the Mineral Kingdom, by Oliver Bowles. 40 pages about asbestos, from mine to finished product, in plain language, illustrated. 25c a copy.

Order any of the above from "ASBESTOS", 17th Fl., Inquirer Bldg., Philadelphia 30, Pa.

THIS and THAT

The Second National Materials Handling Exposition will be held in Cleveland January 12th to 16th inclusive. The Exposition will include a Conference on Materials Handling, and a theatre where films on handling subjects will be shown. Among the many types of equipment to be exhibited at the show will be hand trucks, lift trucks, conveyors, hoists, monorails, portable elevators, tractors, trailers, and many others. Further information may be obtained by contacting Banner & Freif, 424 Madison Ave., New York 17, N. Y.

. . . —

A survey recently made by the U. S. Department of Commerce, showed that of 1650 closed businesses, about one half attributed their discontinuance to scarcities of merchandise and materials. Labor shortages and the rise in labor costs were other principal causes altho to a much less degree. Lack of customers stood fourth on the list, followed by lack of adequate capital.

. . . —

One of the larger electrical manufacturing plants has a furnace which turns out 800 miles of glass tubing a month, enough for 1,000,000 fluorescent lamps.

. . . —

Discovery of a new electrical insulating material, barium titanate, the insulating value of which is said to be 100 to 1,000 times that of mica, is reported by Soviet scientists.

. . . —

The P. & H. Portable House, made by the Harnischfeger Corporation of Port Washington, Wis., utilizes asbestos siding, roof shingles and air return ducts. The houses are designed for field office or camp worker's dwellings. A number of them recently erected at Madison and Clintonville, Wis., are covered with asbestos-cement siding.

AFTERTHOUGHTS

¶ A new 4-page folder on X-ray diffraction is available gratis from North American Philips Company, Inc., 100 E. 42nd St., New York 17, N. Y.

Titled "X-ray Diffraction Camera for Microtechniques" the folder shows construction and explains application of the new camera which is especially adapted to fibre analysis. The folder is illustrated with pictures and drawings. The information given in the new folder should be of value to those actively engaged in fibre research.

¶ One of our readers in changing copy for his advertisement, calls "ASBESTOS" a "grand magazine". We thank him.

¶And another one, this time from "down under" in renewing his subscription says that after reading "ASBESTOS" for a few months they look forward to its arrival with its timely news.

¶ Has anyone learned of any instances where asbestos products, especially asbestos-cement shingles, siding or other material, helped to save buildings in Bar Harbor or elsewhere, near the forest fire zones? If so we would like to have the stories with photographs if available.

¶ Some of our readers may be interested in the eight page booklet recently issued by Baldwin Hill Company on their "Insidline", the insulating liner for pipes under pressure at high temperatures. The company will gladly send a copy to anyone making request on business letterhead, addressing them at 500 Breuning Avenue, Trenton 2, N. J. Better mention "ASBESTOS". "Insidline" was described in our March 1944 number, page 18.

¶ We are still asking for articles concerning asbestos products developed during the war for war purposes and now found to be equally advantageous these post-war days. Look over your line and send the stories along.

Form 3526
Jan. 1946

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946

Of "ASBESTOS" (Insert title of publication) published monthly (State frequency of issue)

at Philadelphia, Pa. (Name of post office and State where publication is entered) for October 1947

STATE OF Pennsylvania
COUNTY OF Philadelphia } ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared A. S. Rossiter, who, having been duly sworn according to law, deposes and says that he is the Editor (State whether editor, publisher, business manager, or owner) of the magazine "ASBESTOS" (Insert title of publication) and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily, weekly, semiweekly or triweekly newspaper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

	Name of—	*Post office address—*
Publisher	Secretarial Services, 17th Fl., Inquirer Bldg., Phila., 30, Pa.	
Editor	A. S. Rossiter	Blue Bell, Montg. Co., Pa.
Managing editor	A. S. Rossiter	Blue Bell, Montg. Co., Pa.
Business manager	(A. S. Rossiter	Blue Bell, Montg. Co., Pa.
	(E. E. Cox	1216 S. 51st St., Phila., 43, Pa

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Estate of C. J. Stover	130 Summit Ave., Jenkintown, Pa.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

None	

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is .....
(This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

A. S. Rossiter
(Signature of editor, publisher, business manager, or owner)

Sworn to and subscribed before me this 17th day of September, 1947

[SEAL] Tom White

(My commission expires Jan. 27, 1949)

Note.—This statement must be made in duplicate and both copies delivered by the publisher to the postmaster, who shall send one copy to the Third Assistant Postmaster General, Division of Newspaper and Periodical Mail, Washington 25, D. C., and retain the other in the files of the post office. The publisher must publish a copy of this statement in the second issue printed next after its filing.

POSTMASTER: BE SURE TO READ AND CAREFULLY OBSERVE INSTRUCTIONS ON THE OTHER SIDE 10—16720-2

* * *

The greatest opportunities occur during depressed and discouraging periods, but it is difficult to recognize them at such times.

CURRENT RANGE OF PRICE

As of November 10, 1947

	Per Ton (2000 lbs.) f.o.b. Mine
Canadian—	
Group No. 1 (Crude No. 1)	$800.00
Group No. 2 Crude No. 2; Crude Run-of-Mine and Sundry	$302.50 to 545.00
Group No. 3 (Spinning or Textile Fibre)	170.50 to 354.50
Group No. 4 (Shingle Fibre)	82.50 to 127.00
Group No. 5 (Paper Fibre)	58.00 to 73.50
Group No. 6 (Waste, Stucco or Plaster)	43.00 to 47.50
Group No. 7 (Refuse or Shorts)	19.50 to 44.50
Vermont—	
Per Ton of 2000 lbs. f.o.b. Hyde Park or Morrisville, Vt.	
Group No. 4 (Shingle Fibre)	$82.50 to $91.50
Group No. 5 (Paper Fibre)	58.00 to 65.00
Group No. 6 (Waste, Stucco or Plaster)	43.00
Group No. 7 (Refuse or Shorts)	20.50 to 38.50

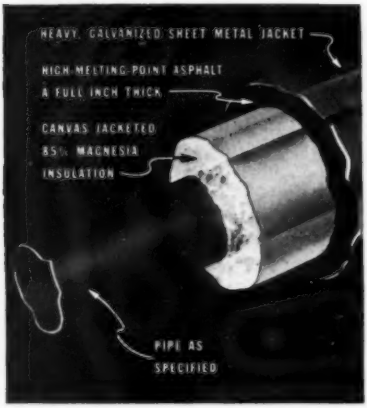
Note: Crude Run-of-Mine (Canadian) refers to a crude asbestos produced in certain mines where Crude Fibre is not graded into regular No. 1 and 2 Crude. Crude Sundry refers to certain odd lots of off material which do not conform to the regular standards of No. 1 Crude or No. 2 Crude.

ASBESTOS STOCK QUOTATIONS

(These figures are compiled from the Commercial and Financial Chronicle. No guarantee made as to their correctness).

		October 1947		
	Par	Low	High	Last
Armstrong Cork Co. (Com.)	np	49⅛	53⅛	51⅝
Armstrong Cork Co. (Pfd.)	np	99	105¾	100
Asbestos Corp. (Com.)	np	25	27¾	27¾
Asbestos Mfg. Co. (Com.)	1	2	2½	2½
Celotex (Com.)	np	27¼	30⅛	28
Celotex (Pfd.)	20	20⅜	20⅞	20⅜
Certainteed (Com.)	1	17⅝	19	18⅜
Flintkote (Com.)	np	35¼	39½	36½
Flintkote (Pfd.)	np	105½	107	105½
Johns-Manville (Com.)	np	42¾	46½	43½
Johns-Manville (Pfd.)	100	115	127	120½
Raybestos-Manhattan (Com.)	np	29⅞	36	34¾
Ruberoid (Com.)	np	60¾	68¼	65
Thermoid (Com.)	1	10¼	11½	10⅜
Thermoid (Pfd.)	50	49½	54	52½
Union Asb. & Rubber (Com.)	5	10¼	12⅝	12
U. S. Gypsum (Com.)	20	100	105½	105
U. S. Gypsum (Pfd.)	100	180	187	180
U. S. Rubber (Com.)	10	45	49¾	47⅝
U. S. Rubber (Pfd.)	100	135	146½	140½

Sectional view of Durant Insulated Pipe, showing construction features. Pipe, insulation and protection are factory-fabricated into units.



EHRET'S D.I.P.

. . . SETS STANDARDS FOR UNDERGROUND INSULATED PIPING

Ehret's Durant Insulated Pipe combines the high insulating efficiency of 85% Magnesia and the time-defying characteristics of imperishable asphalt. Added to this advantage is factory-fabricated construction which makes field installation both rapid and economical.

Send for the special Ehret booklet on D. I. P. It contains full details on this modern system for underground insulated piping.

EHRET MAGNESIA MANUFACTURING COMPANY

VALLEY FORGE • PENNSYLVANIA

SOUTHERN ASBEST

TAPE

Southern Listing Tapes are flame proof. Flexible, uniform weave, w and thickness assures superior service and insulation. High tensi e stre insures efficient application.

Two types—Ferrous for general insulating purposes and Non-Fer where a material with very low iron content is essential. Write for i trated Folder No. 1008.

Over 25 years of specialized experience in Asbestos Textiles and Textile Products is at your service at Southern Asbestos. Our technical and production facilities are available to help you improve old and develop new uses for asbestos fibre and textiles.

A COMPLETE LINE OF ASBESTOS TEXTILE PRODUCTS

ROVING • YARNS
THREAD • CORD
CLOTH • ROPE • WICK
TUBING
OIL BURNER WICK